

## Intravitreal aflibercept injections for treating wet age-related macular degeneration unresponsive to others anti-vascular endothelial growth factor: initial experience in routine clinical practice.

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# BACKGROUND

Intravitreal aflibercept is an alternative for treatment of wet agerelated macular degeneration (AMD) that has theoretical advantages over others anti-vascular endothelial growth factor (anti-VEGF) which only binds to VEGF-A. This drug also binds to VEGF-B and the Placental Growth Factor, two additional factors of neovascularization.

### PURPOSE

To evaluate the response of intravitreal aflibercept in patients with wet AMD previously treated with bevacizumab and ranibizumab.

#### METHODS

- Retrospective analysis included wet ADM patients that were treated with 2 mg intravitreal aflibercept injections. Initially patients received 3 monthly injections, followed by bimonthly injections.
- Aflibercept was included as third line of ADM treatment in refractory patients to monthly intravitreal injections of bevacizumab and ranibizumab (as first and second line respectively) or with contraindications to these treatments.
- We identified in our electronic medical records all patients who were treated with aflibercept and reviewed the medical histories.
- Collected data were: number of patients, number of eyes treated, patient age and gender, number of bevacizumab, ranibizumab and aflibercept injections and number of eyes that showed an improvement of quality of vision and/or ocular lesions. Patients were tested of best corrected visual acuity (BCVA) and optical coherence tomography (OCT).

#### RESULTS

Patients treated with aflibercept as 3rd line: 18 (20 eyes) Age (mean ± SD): 73±9 Intravitreal injections of Bevacizumab: 11,15±5,24 injections/eye Ranibizumab: 2,80±0,83 injections/eye Aflibercept: 2,60±1,85 injections/eye

Eyes that showed an improvement of quality of vision and/or ocular lesions: 7 (12 eyes remained stable and 1 showed vision loss) Patients treated with aflibercept in 2nd line (due to high cardiovascular risk, macular bleeding and/or vision loss related to bevacizumab): 3 (3 eyes) Intravitreal injections of aflibercept: 2 inyections/eye

#### CONCLUSIONS

A proportion of persistent wet AMD cases despite regular bevacizumab and ranibizumab treatment responded to aflibercept

It was well tolerated with no adverse events reported even with high cardiovascular risk patients. More time will be necessary to evaluate longterm efficacy. Due to this findings, its different mechanism of action and the reduction in the number of administrations, aflibercept is proposed to be the second line therapy in wet AMD.

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